

and women over the age of 30 into one of two categories "presumptive bronchitics" and "presumptive non-bronchitics". The definition of chronic bronchitis adopted was "a long-standing condition, the essential features of which are a cough with sputum, persistent through the winter or throughout the year, in the absence of other causative respiratory disease. A minimum duration of two years is essential for its recognition."

The determination with which the survey was prosecuted and the success it achieved can be judged from the fact that only 26 out of 3,866 people interviewed refused all information and 1,202 out of 1,250 required for examination at hospital were in the end examined.

All of the "presumptive bronchitics" were examined clinically at hospital and had their chests radiographed and an approximately equal matched group of "presumptive non-bronchitics" was selected by a random procedure and also examined at hospital. The three doctors carrying out the clinical examination quite often did not agree with the health visitors' assessment. Out of 340 selected as bronchitics by the health visitors, the doctors selected 272, and out of 320 selected as non-bronchitic by the health visitors, the doctor diagnosed 81 as having bronchitis. This demonstrates the great difficulty there is in diagnosing on the basis of a questionnaire the early stages of bronchitis. The final prevalence rate given for men of all ages over 30 was 36% and for women it was 17%.

When their bronchitic and non-bronchitic groups had been established and matched for age and sex the authors proceeded to examine the environmental histories in the two groups. They found that the bronchitics had had an excess of early and acute respiratory illnesses and had experienced chest illnesses more frequently than the control subjects. A much higher proportion of the bronchitics complained of dyspnoea. Only 11% of the male bronchitics were non-smokers compared with 26% of the controls. The disease was commoner in the eastern and western industrial areas of the city than in the northern districts. It was associated with a higher density of population and there was a smaller proportion of the two upper social classes in the bronchitic group. No specific occupation was found to suffer a high rate though the clerical, professional, and administrative groups had a low incidence. There was some association with extremes of temperature and with draughts and dusts encountered at work and a strong relationship was found between the incidence of the disease and the number of years of unemployment which had been experienced by the subjects. This and the fact that there was a similar social class gradient in the wives as that found in the men suggested that economic rather than specific occupational conditions were of aetiological importance.

An interesting finding was that 62% of the bronchitics considered that the disease was neither progressing nor getting better. Out of 1,071 whose chests were radiographed, one was found to have a bronchial carcinoma.

The authors found a high incidence of asthma in the bronchitics but this can perhaps be explained by the fact that "bronchial stridor", presumably equivalent to wheezing or sibilant rhonchi, was taken to indicate asthma, whereas many observers would regard this

physical sign as a normal accompaniment of chronic bronchitis in the middle-aged and elderly. It is argued that this indicates hypersensitiveness and that therefore the hypersensitive individual is especially liable to chronic bronchitis. In addition to the detailed report of the survey there are two chapters on the epidemiology and the pathology and bacteriology of chronic bronchitis.

This book is indispensable to those who are interested in the study of chronic bronchitis by epidemiological methods, as it describes on a larger scale than hitherto attempted one way in which a prevalence study of a whole community can be attempted, the difficulties that can be expected, and the valuable results that can be achieved.

J. PEMBERTON

**Charles Turner Thackrah: The Effects of Arts, Trades and Professions on Health and Longevity.** With an Introductory Essay on his Life, Work, and Times. By A. Meiklejohn. (Pp. 238+50; illustrated. 25s.) Edinburgh and London: E. & S. Livingstone. 1957.

Charles Turner Thackrah is commonly spoken of as the Father of British Occupational Medicine, and with reason since in his book he propounded for the first time the conception of industrial health based on prevention. In this sense indeed Thackrah's influence has extended far beyond the shores of Britain for physicians in industry everywhere all over the world are today his disciples and inheritors.

His book was first published in 1831 and it was highly spoken of by all the reviewers in the journals of the day. The *Lancet* confidently recommended the work to the profession and trusted that Thackrah would find some successful followers "in the benevolent cause he thus invites others to pursue". As Dr. Meiklejohn says, "Those who study the work now for the first time will make their own assessment. Much will depend . . . on what they bring to it for author and reader are complementary".

The first edition was soon sold out and although the second appeared a year later, both are hard to come by, and Dr. Meiklejohn, his publishers, and the Wellcome Trust (without whose generous help publication would not have been possible) have put all those engaged in the practice of occupational health, and indeed the whole profession, in their debt by making this medical classic accessible to everyone almost in its original form, for the present volume is not merely a reprint—it is a facsimile which has been reproduced by photolithography.

In addition, Dr. Meiklejohn has contributed a biographical essay which is the first full and truly authoritative account of Thackrah which has appeared. Several essays have in fact previously been written about him but all have been based on the memoir by Dr. Henry Yates Whytehead in 1834 to the posthumous second edition of Thackrah's work on the nature and properties of blood. Whytehead knew Thackrah well since he had served his apprenticeship with him, and he was one of the executors of his will and was also specifically named in it as the legatee of all his former master's manuscripts. So Whytehead can be regarded as a reliable original

source. Dr. Meiklejohn has of course drawn on the material in this first-hand account, but he has also himself carried out extensive researches which have thrown much new light on Thackrah. He has sought out the three original portraits of Thackrah which have survived and all are reproduced as illustrations in the present volume. The erudition shown in this essay is immense. This is in fact a considerable piece of historical research: the prose in which it is written is elegant and simple, and the whole forms a work of art which is deserving of the highest praise.

Some of Dr. Meiklejohn's more intimate friends, especially perhaps his fellow members of the Thackrah Club, know the difficulties which have had to be overcome in order to make publication of this book possible, but he has been indefatigable and has in the end surmounted every obstacle with the happy result which is now seen. Dr. Meiklejohn is to be warmly congratulated on a great achievement.

GERALD KEATINGE

**Youth at Work.** By M. E. M. Herford. (Pp. 154 + Appendix. 18s. 6d.) London: Max Parrish. 1957.

It was sometimes complained, in the early days, that the work of the certifying factory surgeon, as he was then called, was no better than it ought to be. Perhaps his main function at that time was to act as a check on the employment of young people in contravention of the age limits imposed by statute; it would in any case have been unrealistic to expect him to be very highly selective in his decisions on fitness for employment in view of the high prevalence of severe physical defect among young people. Now the climate has greatly changed, and, with the development of school health services, it has come to be expected as reasonable that the successors of the certifying factory surgeons should make a more positive contribution to the employment of young persons and that their work should be more closely related to that of the school medical service.

Working on this basis, Dr. Herford, in the capacity of an appointed factory doctor, has presented, in "Youth at Work", a study of adolescents in industry in the Slough area, which has a total population of about 140,000; it is essentially an area of light industry. Dr. Herford describes the health problems encountered and the main defects found. Not many of the young people with a disability qualifying for admission to the Disabled Persons Register were doing, or trying to do, a job that was too heavy for them at that stage; but facilities for training were inadequate. A number of the mentally handicapped young persons who had been notified under the Education Act as being in need of supervision after leaving school were doing simple routine jobs with success—sometimes better than their supposedly more intelligent companions. In general, the position of apprentices and apprenticeship did not appear to be very satisfactory and this helped to bring the system into disrepute, though for apprenticeship to some crafts, such as electrical engineering and cabinet-making, there were insufficient vacancies. The disturbing effect of imminent National Service on the young worker was found to be

decreasing; Dr. Herford believes that few, if any, of the boys who might be expected to take apprenticeships were deterred from doing so by the thought of National Service, though the desire to get Service over, or to go in company with mates, was sometimes a convenient excuse for breaking an apprenticeship. Nearly 20% of the young persons studied came from homes broken by illness, separation, or death; and these youngsters had more difficulty than the others in settling down at work.

Dr. Herford concludes that the duties of the appointed factory doctor should be on an essentially whole-time basis; that he should be primarily a member of the staff of the Medical Inspectorate of Factories, but should hold a joint appointment with the local authority as an assistant school medical officer; that all young persons should be examined regardless of occupation; that the appointed factory doctor should be appointed medical adviser to the Youth Employment Service and should be provided with a secretary seconded from the staff of that Service; that school medical records should be submitted automatically to the appointed factory doctor when the children leave school; and that it would be an advantage to have the appointed factory doctor associated with a university department.

T. FERGUSON

**The Social Problem of Mental Deficiency.** By N. O'Connor and J. Tizard. (Pp. 190. 30s.) London and New York: Pergamon Press. 1956.

Mental deficiency is indeed a grave social problem, but there are still far too few people who realize this, and fewer who act on it. Industry, and industrial medical and personnel officers in particular, have a great opportunity to educate the public in this respect, and in this will be greatly helped by these two authors. The book contains a survey of the background and also their own original research, reported or referred to in its chapters. These include studies in predicting occupational success, in training skills, and in adaptation to community life.

The scientific value of these studies is not in doubt but the accounts are written in a somewhat pedestrian style, and are not very readable. This is a pity for it may blind many readers to the real value of the work and of this book.

What really matters is that there is here a challenge to established ideas of mental deficiency, ideas moreover on which much of present-day building, staffing, and occupation (or the lack of it) is based. Here is strong evidence to show that with suitable training, many high-grade defectives can be taught to earn their living and to do so in a way which is of real value to the community, and be far happier thereby. This is of course based on the pioneer work of such people as Laing of Darenth Park in this field: but the authors take the work a stage further in their assessment of predictability and of the type of training required. Further, they describe and summarize similar work on the successful employment of imbeciles in experimental workshops. All this must give food for thought to the superintendents of colonies, and those who plan, and pay for, and select their medical and nursing staff: for few are well enough equipped to